

Date: Wed, 27 Oct 93 18:12:48 PDT  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #1275  
To: Info-Hams

Info-Hams Digest

Wed, 27 Oct 93

Volume 93 : Issue 1275

Today's Topics:

"Vanity" Call Signs  
'Vanity' calls.  
BAUD VS BAUDS (5 msgs)  
Baud vs BPS  
Future Handhelds ??  
Help:College wants to broadcast!  
List of CEPT countries?  
Mirage Amplifiers in Repeater Service  
Mods for Heath HW-2M?  
random selection of memory TS-450/690  
Two-Line Keplerian Elements - Where?  
Was 'Vanity' Call Signs, now paying for call signs

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>

Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>

Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: Wed, 27 Oct 1993 21:39:52 GMT  
From: news.cerf.net!pagesat!ukma!eng.ufl.edu!usenet.ufl.edu!mailer.cc.fsu.edu!  
freenet2.scri.fsu.edu!henryf@network.ucsd.edu  
Subject: "Vanity" Call Signs  
To: info-hams@ucsd.edu

What is a vanity call sign???

de N5HF

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Date: 27 Oct 1993 21:48:01 GMT  
From: jgervais@ucsd.edu  
Subject: 'Vanity' calls.  
To: info-hams@ucsd.edu

In article <9310271107.AA36064@swmis> P.Lucas@mail.nerc-swindon.ac.UK writes:  
>  
>Seems odd to me why anyone would be prepared to pay for these. I have always  
>considered calls to be part of the 'protocol overhead' of ham radio;  
>they are a tiresome burden we have to accept in order to stay legal. In  
>reality, they tend to get in the way of 'real communication'.  
>Maybe someday we will be able to transmit our calls on some subcarrier or  
>other, complying with the legal requirement to ID, but without needing to  
>interrupt the data-flow to do so?  
>  
>       Pete Lucas       pjml@swmis.nsw.ac.uk       g6wbj@gb7sdn.gbr.eu  
>       Also available on Data, voice and video modes 50MHz and up.

I actually prefer having to use the callsign, and it  
seems that they \*facilitate\* communications quite well.  
Just the thought of how many "Joe"'s may show up in  
a crowded portion of the band makes me shudder, but I  
know I can rely on there being only one KD6PRD. Well,  
barring any errors in the FCC's database.

Besides, it makes for a nice alias. 'Course I've always  
been on the nerdy side... :)

73,

Joe Gervais   jgervais@ucsd.edu  
KD6PRD/AG   "20 WPM or Bust!"

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"The largest hack begins with a single kludge."  
- Not quite Confucious

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Date: 27 Oct 93 15:41:17 GMT  
From: ogicse!emory!kd4nc!ke4zv!gary@network.ucsd.edu  
Subject: BAUD VS BAUDS  
To: info-hams@ucsd.edu

In article <2ajofp\$stp@msuinfo.cl.msu.edu> cravitma@pacific.uucp (Matthew B  
Cravit) writes:

>In article <199310261649.JAA01502@ucsd.edu> AGRI098@UNLVM.UNL.EDU (Roy) writes:  
>>IS THE TERM BAUD LIKE MOST PEOPLE USE OR IS IT BAUDS LIKE THE ARRL FOLKS  
>>USE?  
>>Roy  
>  
>As I have always used it (as a computer person soon to hopefully be a  
>technician-class ham), I have always said "baud" as a synonym for  
>"bps" or bits-per-second. It would seem that "bauds" would be like  
>bits per second<sup>2</sup>, or a measurement of the change in the transmission  
>speed of data. Of course, I may be wrong.

You're not completely wrong. Baud != BPS except in one particular degenerate case. It's quite feasible, and routine commercial practice, to transmit more than one bit per baud. The baud is a measure of symbol rate. It's defined as the reciprocal of the shortest element (in seconds) of the encoding modulation. If the shortest modulation element, or symbol, takes 1 millisecond, the symbol rate (baud) is 1,000. Note that baud *\*is\** a rate, so saying "baud rate" is incorrect because it's saying "symbol rate rate". "Bauds" then means "symbol rates". So the usage of bauds is when describing a *\*family\** of symbol rates such as "the modem supports bauds of 110 to 19,200".

The ARRL frequently confuses this usage by inappropriate use of the plural form. They say things like 1200 bauds, which means 1200 symbol *\*rates\**, when they mean 1200 baud, or a symbol rate of 1200. They are far from alone, however, since the computer industry is frequently guilty of using the inappropriate combination "baud rate".

Gary

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Gary Coffman KE4ZV | "If 10% is good enough | gatech!wa4mei!ke4zv!gary  
Destructive Testing Systems | for Jesus, it's good | uunet!rsiatl!ke4zv!gary  
534 Shannon Way | enough for Uncle Sam." | emory!kd4nc!ke4zv!gary  
Lawrenceville, GA 30244 | -Ray Stevens |

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Date: Tue, 26 Oct 1993 19:38:18 GMT  
From: pacbell.com!att-out!cbnewsj!k2ph@network.ucsd.edu  
Subject: BAUD VS BAUDS  
To: info-hams@ucsd.edu

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Date: Tue, 26 Oct 1993 19:47:55 GMT  
From: pacbell.com!att-out!cbnewsj!k2ph@network.ucsd.edu

Subject: BAUD VS BAUDS  
To: info-hams@ucsd.edu

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Date: Wed, 27 Oct 1993 04:25:33 GMT  
From: swrinde!emory!europa.eng.gtefsd.com!howland.reston.ans.net!spool.mu.edu!  
torn!nott!cunews!freenet.carleton.ca!Freenet.carleton.ca!aj467@network.ucsd.edu  
Subject: BAUD VS BAUDS  
To: info-hams@ucsd.edu

In a previous article, AGRI098@UNLVM.UNL.EDU (Roy) says:

>IS THE TERM BAUD LIKE MOST PEOPLE USE OR IS IT BAUDS LIKE THE ARRL FOLKS  
>USE?  
>Roy  
>

I believe the term to be baud as in "baud rate"  
However I would like to point out that it is wrongly used to describe  
a 1200 bit/sec modem as that is not the true "baud rate"  
these are not discrete events in a binary sense, but convey these binary  
events by introducing analog variables.

Life can be confusing can't it.

--  
Bill VE3NJW, VE3NJW@VE3KYT.#EON.ON.CAN

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Date: Wed, 27 Oct 1993 04:39:28 GMT  
From: swrinde!cs.utexas.edu!utnut!nott!cunews!freenet.carleton.ca!  
Freenet.carleton.ca!aj467@network.ucsd.edu  
Subject: BAUD VS BAUDS  
To: info-hams@ucsd.edu

>Actually, a baud is a SYMBOL per second. In a binary system, that is  
>the same as a bit per second. If you transmit more than one bit per  
>symbol, a baud does not equal a bit per second. Such is the case for  
>V.32 (9600 bps) modems which transmit at a rate of 2400 bauds  
>(+/- 0.01%).

>  
>Again, "baud" if you're speaking about one, "bauds" if you're speaking  
>about more than one.

>  
>73,

>Bob K2PH

I know this is getting a little ethereal but I was always lead to believe that baud derived from baud rate. Since a baud rate is a measure of discrete events of a binary nature per unit of time, bauds could only refer to a grouping of different baud rates.

Nit picky I know.

But I think your explanation of 9600 bps and 2400 baud is better than my theoretical discrete binary events QPSK forever or is it Dibit amplitude modulation, certainly not trellis encodeing.

--

Bill VE3NJW, VE3NJW@VE3KYT.#EON.ON.CAN

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Date: 27 Oct 93 20:00:08 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Baud vs BPS  
To: info-hams@ucsd.edu

When I first got into digital electronics in the '60s there were two popular coding techniques for data transfer by modem in supervisory control and data acquisition (SCADA) systems.

A return to zero (RZ) code where a "logical zero" was represented by the first one-third of a bit being a mark and the last two-thirds of the bit being a space. A "logical one" was represented by the first two-thirds of a bit being a mark and the last one-third of the bit being a space. This code has a bits per second rate of one-third the baud rate, e.g. 300 baud => 100 BPS. This system used an FSK modem so it is possible that bits per second do not equal baud for FSK modems. Both the digital encoding scheme and analog encoding scheme have an effect on bits per second.

The Manchester coding system, still used in AMPS cellular telephones, uses two baud per bit. A "logical zero" has one-half of a bit equal to space and the other one-half bit equal to a mark. A "logical one" is just the opposite, so there are two baud per bit, e.g. 200 baud => 100 BPS. Note that the Manchester code is a digital code.

The number of baud is the number of events (symbols) per second and is related to bits per second through the encoding scheme. Two ways of encoding more than one bit per baud are shifting phase and varying amplitude within the modem, e.g. 4 digital bits in => one baud out.

Baud is listed as the first choice in the dictionary for the plural of

baud; bauds is listed as second choice. I personally prefer a bawd.

Cecil, kg7bk@indirect.com  
(I do not speak for Intel on Internet)

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Date: 27 Oct 93 15:15:05 GMT

From: ogicse!emory!kd4nc!ke4zv!gary@network.ucsd.edu

Subject: Future Handhelds ??

To: info-hams@ucsd.edu

In article <9310260852.utk25191@FAB8.intel.com> RHAREL@FAB8.INTel.COM (RICHARD HAREL) writes:

>How far ahead is the communications industry beyond Amateur Radio  
>Technology ? Looks like wireless modems will make their way  
>into the industry in a big way in the near future. They are full  
>duplex, transparent networking devices that mainly work on  
>spread spectrum technology.

In many areas, the communications industry is 30 years ahead of amateur practice. In a few areas, such as narrow band manually on-off keyed weak signal reception, amateurs lead by default, but weak signal reception per se is better in commercial practice than amateur practice, witness the Deep Space Network's phase coherent techniques. Commercial throughput and channel utilization are almost always higher than current amateur practice supports. On a more mundane level, commercial trunked and cellular systems far surpass our repeater networks. This isn't, however, so much a technology issue as a money, cooperation, and inertia issue.

Many of the techniques in common amateur use are frozen in time at the level that the commercial systems had reached 30-50 years ago when they caught up with the most advanced amateur systems then in use.

Our amateur data networks are generally frozen at a technical level about 15 years behind commercial best technology, though there are exceptions. For the most part we are frozen at the Bell 202 FM AFSK and Bell 103 FSK level due to those standards' inclusion in amateur TNCs. But there are better techniques being used by a few, such as Clover, the Heatherington 56kb RF modem, and a few megabit FSK systems. A tiny amount of spread spectrum work is also occurring on the amateur bands. Our cutting edge protocol engines are also only a couple of years behind commercial practice, and indeed were leading commercial practice a short time ago.

There has always been a tiny minority of amateurs who pushed the envelope of technology. Things like Oscars, the parametric amplifier, and many other one time advanced VHF/UHF techniques, practical HF SSB, etc, but the majority of amateur early adoptors of new technologies remain frozen at that level while the commercial world continues to advance. So the general practice lags far behind commercial standards.

Gary

--

Gary Coffman KE4ZV | "If 10% is good enough | gatech!wa4mei!ke4zv!gary  
Destructive Testing Systems | for Jesus, it's good | uunet!rsiatl!ke4zv!gary  
534 Shannon Way | enough for Uncle Sam." | emory!kd4nc!ke4zv!gary  
Lawrenceville, GA 30244 | -Ray Stevens |

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Date: 27 Oct 93 12:47:28 GMT

From: ogicse!uwm.edu!vixen.cso.uiuc.edu!moe.ksu.ksu.edu!matt.ksu.ksu.edu!  
news@network.ucsd.edu  
Subject: Help:College wants to broadcast!  
To: info-hams@ucsd.edu

Hello,

The University I attend has a radio station but it doesn't broadcast over the air its signal is sent through cable only! The head of the department doesn't know what needs to be done to broadcast so I have been asked to check in to it. I need any info on FCC regulations (ie Licences, minimum Wattage, etc.) I also need info on obtaining or making a transmitter, antennae, etc. Please E-mail me any info you can including Internet sites were I can ftp etc.

Thanks for your time and effort!

fredh@matt.ksu.ksu.edu

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Date: Wed, 27 Oct 1993 03:28:03 GMT

From: pacbell.com!amdahl!netcomsv!netcom.com!jfh@ames.arpa  
Subject: List of CEPT countries?  
To: info-hams@ucsd.edu

julian@bongo.tele.com (Julian Macassey) wrote:

> In the order they appear on my licence:  
>Austria, Belgium, Switzerland, Germany, Denmark, Spain, France,  
>Liechtenstein, Greece, Hungary, Italy, Ireland (Eire), Luxembourg,  
>Monaco, Norway, Netherlands (Holland), Sweden, Finland, Czechoslovakia  
>(Note: now 2 countries), New Zealand.

I'm surprised that Iceland isn't on the list. I wish the US would sign on.

--

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Jack Hamilton                    POB 281107 SF CA 94128 USA  
jfh@netcom.com                kd6ttl@w6pw.#nocal.ca.us.na

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Date: 27 Oct 93 21:34:30 GMT  
From: ogicse!emory!sol.ctr.columbia.edu!math.ohio-state.edu!news.acns.nwu.edu!  
casbah.acns.nwu.edu!jweiss@network.ucsd.edu  
Subject: Mirage Amplifiers in Repeater Service  
To: info-hams@ucsd.edu

I'm interested in people who have used Mirage/KLM amplifiers on  
2 Meters, especially those models in the 120-160 watt output range  
and/or used for repeater or other high duty cycles.

The unit on our club repeater occasionally generates spurious output  
and we are trying to understand the cause. This is the second unit  
we've had from Mirage that has done this. The unit is not spurious  
all the time. Some things we've able to piece together.

- 1) More likely to generate spurs when not driven to full power  
(Ie: when used at around 90-100 watts instead of 120 watt rating.)
- 2) More likely to generate spurs when antenna SWR is high (this at  
least I think I understand.)
- 3) Unit will generate spurs even when using completely different types  
of excitors.
- 4) Spurs drift anywhere from 5Khz to 100Khz in an hour.
- 5) More likely to generate spurs when it most inconvenient (Murphy's Law).

I'm going to haul a service monitor the site this weekend and try to figure  
out the problem. Anyone else with similiar experience or suggestions on  
how to deal with this sucker. I'm getting ready to chuck the thing into  
Lake Michigan. The repeater antenna will be replaced shortly anyway (High  
SWR when wet).

Any comments or feedback appreciated.

tnx, WB9MRI

--  
Jerry S. Weiss  
j-weiss@nwu.edu  
Dept. Medicine, Northwestern Univ. Medical School, Chicago, Illinois  
%SYSTEM-S-PHALOKTARG, Phasers Locked on Target, Ready to Fire

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Date: 26 Oct 93 18:50:00 GMT  
From: ogicse!emory!europea.eng.gtefsd.com!darwin.sura.net!martha.utcc.utk.edu!  
utkvx.utk.edu!pratt@network.ucsd.edu  
Subject: Mods for Heath HW-2M?  
To: info-hams@ucsd.edu

Are there any receive or transmit mods for the 2 meter Heath HW-2M HT?

Please mail to Pratt@utkvx.utk.edu

Thanks in advance,  
Mark  
KE4AXW

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Date: 26 Oct 1993 19:42:22 GMT  
From: haven.umd.edu!news.umbc.edu!europea.eng.gtefsd.com!howland.reston.ans.net!  
sol.ctr.columbia.edu!usenet.ucs.indiana.edu!master.cs.rose-hulman.edu!  
news@ames.arpa  
Subject: random selection of memory TS-450/690  
To: info-hams@ucsd.edu

Howdy:

I don't remember if I've asked this before. SRI

Does anyone know how to randomly select a particular memory on the  
TS-450/690?

I would like to enter a memory location on the keypad and access it  
without going to MEM mode and having to sequentially step, one at a time,  
to the desired memory.

Darn! You can do it on a TS-440.

tnx es 73 de Jack, K9CUN

-----  
Date: 28 Oct 93 00:15:00 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Two-Line Keplerian Elements - Where?  
To: info-hams@ucsd.edu

Can anyone tell me where I can find the "current" element sets for STS-58?  
Thanks! ....Roger/N5IFH.

-----  
Date: 27 Oct 93 16:15:47 GMT  
From: microsoft!wingnut!laurahal@uunet.uu.net  
Subject: Was 'Vanity' Call Signs, now paying for call signs  
To: info-hams@ucsd.edu

In article <FAUNT.93Oct26092331@netcom6.Netcom.COM> faunt@netcom6.Netcom.COM (Doug Faunt N6TQS 510-655-8604) writes:

>that we're not getting a complete free ride. How many other countries  
>have free licensing? I know that the UK license is pretty expensive.  
>How about others?

License exams in Canada are \$Cdn5 each. Your station license  
will cost you \$Cdn30 per year (\$Cdn1.00 = \$US0.75 these days).

The concept of vanity calls doesn't really exist in Canada; when  
you get your station license they hand you their book of calls  
and addresses and ask you to pick one that is available. Many  
people pick their initials, or something else that is relevant to  
them. My call is indeed my initials, though here in VE7 land  
there are calls like VE7LID, VE7FUN, and so on.

If you talk very nicely to the Communications Canada folks you can  
get a special event callsign more-or-less for the asking. These often  
have prefixes like X0, CF or CJ.

73 from Burnaby,  
laura VE7LDH

-----  
Date: Wed, 27 Oct 1993 04:43:47 GMT  
From: swrinde@sdd.hp.com!spool.mu.edu!nigel.msen.com!yale.edu!cs.yale.edu!  
wcsub.ctstateu.edu!ritterbus001@network.ucsd.edu

To: info-hams@ucsd.edu

References <2507@arrl.org>, <1993Oct26.044934.7607@nosc.mil>, <260CT199313582627@zeus.tamu.edu>du  
Subject : Re: 'Vanity' Call Signs

A blind (awright, you PC people, visually imparied) ham friend of mine wants to reserve K9SED for his constant companion :-) A quick check of the callbook says it's still available.

Jim Ritterbusch  
ritterbus001@wcsu.ctstateu.edu - or - N1QNK  
One if by LAN, two if by C, three if by C++

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Date: Wed, 27 Oct 1993 04:59:47 GMT  
From: swrinde!elroy.jpl.nasa.gov!usc!howland.reston.ans.net!spool.mu.edu!  
nigel.msen.com!yale.edu!cs.yale.edu!wesub.ctstateu.edu!  
ritterbus001@network.ucsd.edu  
To: info-hams@ucsd.edu

References <2ahec9INN6se@abyss.West.Sun.COM>, <pschleck.751603812@cwis>, <1993Oct26.212936.20873@ultb.isc.rit.edu>teu  
Subject : Re: Bird watt-meters can't be exported?

>>>>So, what's with the "Not available for export" notation across the  
>>>>photo of the Bird meter in the Barry ads? Too delicate? Upsets  
>>>>someone's monopoly? Munitions? Classified equipment?  
>>>  
>>>The meter would have to be recalibrated to read foreign watts.  
>>>  
>>  
>>>Don't be silly. There is no such thing as foreign watts.  
>>  
>  
> It has to be recalibrated in Metric watts.  
>  
Also, all of the meter faces will have to be removed, and a small  
sticker applied covering "Watts" that says "Wattes" :-)

But seriously, a lot of high tech gear has export restrictions by either/or the State Department or the Commerce Department. Some years ago, when I worked more closely with export, just about anything that contained an IC had to have an export license approved prior to export.

I imagine that there has been some relaxation of the restrictions,

but look at how Iraq and others have built their high-tech arsenals:  
with equipment supplied by companies from their one-time allies!

Jim  
N1QNK

---

Date: (null)  
From: (null)

Actually, a baud is a SYMBOL per second. In a binary system, that is the same as a bit per second. If you transmit more than one bit per symbol, a baud does not equal a bit per second. Such is the case for V.32 (9600 bps) modems which transmit at a rate of 2400 bauds (+/- 0.01%).

Again, "baud" if you're speaking about one, "bauds" if you're speaking about more than one.

73,  
Bob K2PH

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--  
-----  
Bob Schreibmaier K2PH | UUCP: ...!att!mtdcr!bob  
AT&T Bell Laboratories | Internet: bob@mtdcr.att.com  
Middletown, N.J. 07748 | ICBM: 40o21'N, 74o08'W

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Date: (null)  
From: (null)  
Depends. Singular is baud. Plural is bauds. If it's more than one, bauds is correct.

73,  
Bob K2PH

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-----  
Bob Schreibmaier K2PH | UUCP: ...!att!mtdcr!bob  
AT&T Bell Laboratories | Internet: bob@mtdcr.att.com  
Middletown, N.J. 07748 | ICBM: 40o21'N, 74o08'W

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Date: Wed, 27 Oct 1993 18:33:36 GMT  
From: rtech!amdahl!netcomsv!netcom.com!jfh@decwrl.dec.com

To: info-hams@ucsd.edu

References <FAUNT.930ct24182425@netcom3.Netcom.COM>, <dbledsoeCFHryr.1tF@netcom.com>, <CFJ304.Bp5@fc.hp.com>  
Subject : Re: GAY INTERNATIONAL HAM RADIO CLUB

perry@fc.hp.com (Perry Scott) wrote:

>As I understand the 1st amendment, the ARRL can print whatever they  
>want. Do the civil rights of LARC exceed those of the ARRL?

The ARRL is not an ordinary private citizen. It receives government support (non-profit status) and has some governmental privileges (administering tests, for example).

>: LARC believes that to go ahead and run the advertising without  
>: resolution of the underlying issue will undermine its own complaint. So,  
>: until the ARRL will discuss the real issue of discrimination, the issue of  
>: advertising cannot be resolved.

>

>What discrimination? The ARRL refused to print my article. Do I get to  
>sue them too?

If the ARRL said "We won't print your article because you're gay/black/jewish", then yes, you should sue.

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Jack Hamilton                    POB 281107 SF CA 94128 USA  
jfh@netcom.com                kd6ttl@w6pw.#nocal.ca.us.na

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End of Info-Hams Digest V93 #1275

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